MEMORANDUM



Missouri Department of Transportation Construction and Materials Central Laboratory

TO:

John Tyler-6rw

COPY:

FROM:

Frank Reichart

Environmental Chemist

DATE:

April 29, 2011

SUBJECT:

Materials

Asbestos Inspection & Heavy Metal Paint Survey Report

Route I-55 OR Job No. N/A

Parcel E6-1120 (Ohio MT Lot)

City of St Louis

We are providing you with the results of the requested inspection on the above referenced property. The inspection report contains an asbestos and a heavy metals survey, unless otherwise requested. The asbestos inspection included sample collection of suspect asbestos-containing material and National Voluntary Laboratory Accreditation Program (NVLAP) accredited testing to confirm the presence of asbestos. This asbestos and heavy metal paint report includes four different report forms. Form T746 lists all of the samples taken during the asbestos inspection. Form T747 shows only those samples that tested positive for Category I nonfriable asbestos-containing materials that may remain in the structure during demolition, if kept adequately wet to avoid visible air emissions. Form T748 shows only those samples that tested positive for asbestos and require removal prior to demolition. Form C760 lists all paint samples taken during the heavy metal paint inspection and their metal content.

In accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP), as well as city and county asbestos abatement regulations - Registration, Notification, and Performance Requirements, regulated asbestos-containing material (RACM) namely, Friable and Category II nonfriable, have a high probability of becoming friable under normal demolition forces. Practices and procedures for removal prior to demolition, disposal, and clearances should be in accordance with referenced regulations. Missouri Department of Transportation policy is to perform asbestos abatements in accordance with NESHAP.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31 2003, a heavy metal paint inspection has been performed on the above referenced property. We are providing you with the results of this inspection. The inspection includes locating painted concrete, block and/or brick surfaces, sampling the painted surface(s) and testing the paint(s) to determine if hazardous heavy metals are present. Non-hazardous painted concrete, blocks, or bricks may be used as clean fill

TO: Tyler-6rw Page 2 April 29, 2011

materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling behind walls, above ceilings, beneath floors, etc., it is possible that potentially hidden asbestos-containing materials may exist within the structures. To our knowledge, we have located all suspect asbestos-containing and all painted concrete, block and brick surfaces. If suspect asbestos-containing materials or if painted concrete, block and/or brick surfaces are observed in addition to those reflected in this inspection report, then please advise us immediately so that we may schedule a follow-up inspection.

Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/dr J:\barred\asbestos\District 6\Misc\fr1104291.doc Attachments

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Asbestos Survey Report All Suspect ACM

PARCEL NO.: DATE OF SURVEY: COUNTY: DISTRICT: MODOT JOB NO.: ROUTE: N/A I-55 OR April 21, 2011 E6-1120 (Ohio MT Lot) City of St Louis

> SITE ADDRESS: **CERTIFICATION #:** SURVEYED BY:

7112010411MOIR11239, F.R. Frank Reichart and Diane Roegg 7112010411MOIR7165, D.R.

4360 Ohio Ave, St Louis 63111

TYPE(S) OF STRUCTURE(S): 6-Bay Block Maintenance Shed on Concrete Pad, Small Metal Shed on Concrete Pad, Two (2) Metal-Clad Roof Equipment

Racks, 5-Bay Concrete/Block Salt Shed on Concrete Pad with

Attached Wooden Shed, Diesel Tank on Concrete Pad, Vertical

Cement Tank on Metal Supports

Sample ID	Type of Materials	Location of Waterial	Friability Category	Field
	Maintenance Building	The state of the s	0	
11MFJR 135	Asphalt Roofing Material	Main Roof	N-ACM	
11MFJR 136	Asphalt Roofing Shingles	Roof, Over Bay Extension, 1st Layer	N-ACM	
11MFJR 137		Roof, Over Bay Extension, 2 nd Layer	N-ACM	
11MFJR 138	Asphalt Joint Compound [®]	Roof, Over Bay Extension, Along Seams	INF	15 Lin. Ft.
11MFJR 139		4-Vertical Seams, North and South Ends	HNH	62 Lin. Ft.
11MFJR 140	Caulking on Block	Vertical Seams, Window Insets, West Wall	IINE	80 Lin. Ft.
11MFJR 141	TSI Elbows	Mechanical Room	N-ACM	
11MFJR 142	TSI Runs	Mechanical Room	N-ACM	
11MFJR 143	Grout and Mortar, Ceramic Tile	Floor, Office, Over Concrete	N-ACM	
11MFJR 144	Grout, Ceramic Tile	Walls, Shower in Bathroom	N-ACM	
11MFJR 145	Adhesive, Ceramic Tile	Walls, Shower in Bathroom	N-ACM	
11MFJR 146	Backerboard	Walls, Shower in Bathroom	N-ACM	
11MFJR 147	Sheetrock, Joint/Tape/Mud	Walls, Office and Vending	N-ACM	
11MFJR 148	Insulation	Along Roofline	N-ACM	
	NOTE: Asphalt Joint Compound sample was not obtained due to safety	ot obtained due to safety considerations. Material is presumed		
	to be ACM (P-ACM) with typical asbestos type and percentage reported.			
	Metal Shed on Concrete Pad			
	No samples taken. No suspect ACM located.			
	Equipment Racks			
	No samples taken. No suspect ACM located.			

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Asbestos Survey Report All Suspect ACM

SURVEYED BY:

SITE ADDRESS: **CERTIFICATION #:**

COUNTY: DISTRICT: MODOT JOB NO .: ROUTE: PARCEL NO.: DATE OF SURVEY: N/A City of St Louis I-55 OR E6-1120 (Ohio MT Lot) April 21, 2011

7112010411MOIR11239, F.R. Frank Reichartand Diane Roegge 7112010411MOIR7165, D.R.

4360 Ohio Ave, St Louis 63111

TYPE(S) OF STRUCTURE(S): 6-Bay Block Maintenance Shed on Concrete Pad, Small Metal

Shed on Concrete Pad, Two (2) Metal-Clad Roof Equipment

Attached Wooden Shed, Diesel Tank on Concrete Pad, Vertical Racks, 5-Bay Concrete/Block Salt Shed on Concrete Pad with

Cement Tank on Metal Supports

										11MFJR 151	11MFJR 150	11MFJR 149				Sample ID
be present hidden underneath walls and ceilings.	NOTE: Non-destructive means were used to sur		777					No samples taken. No suspect ACM located.	Vertical Cement Tank and Supports	Asphalt Joint Compound	Asphalt Roofing Shingles	Asphalt Roofing Shingles	Salt Shed	No samples taken. No suspect ACM located.	Diesel Tank on Concrete Pad	Type of Materials
	NOTE: Non-destructive means were used to survey and sample this property. Additional suspect material may									Roof, Attached Wooden Shed, Seams	Roof, Attached Wooden Shed, 1 st Layer	Roof, Under Metal Roofing				Location of Material
										N-ACM	N-ACM	N-ACM				Friability Category
								_								Field Measure

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS

Nonfriable Asbestos-Containing Materials **Asbestos Survey Report**

(Abatement not required if not made friable during demolition.)

	PARCEL NO.:	DATE OF TESTS:	COUNTY:	DISTRICT:	MODOT JOB NO.:	ROUTE:
	E6-1120 (Ohio MT Lot)	April 28, 2011	City of St Louis	6	N/A	I-55 OR
			TYPE(S) OF STRUCTURE(S):	SITE ADDRESS:	CERTIFICATION #:	TESTED BY:
Attached Wood	Racks, 5-Bay C	Shed on Concre	6-Bay Block M	4360 Ohio Ave.	7112010411MC	Frank Reichart

Cement Tank on Metal Supports len Shed, Diesel Tank on Concrete Pad, Vertical oncrete/Block Salt Shed on Concrete Pad with te Pad, Two (2) Metal-Clad Roof Equipment aintenance Shed on Concrete Pad, Small Metal)IR11239, F.R. St Louis 63111

				-												11MFJR 138		Sample ID	
suspect material may be present hidden underneath walls and ceilings.	NOTE: Non-destructive means were used to survey and sample this property. Additional				Vertical Cement Tank and Supports		Salt Shed		Diesel Tank on Concrete Pad		Equipment Racks		Metal Shed on Concrete Pad	presumed to be ACM (P-ACM) with typical asbestos type and percentage reported.	NOTE: Asphalt Joint Compound sample was not obtained due to safety considerations. Material is	Asphalt Joint Compound	Maintenance Building	Type of Material	
eath walls and ceilings.	survey and sample this property. Additional			None Located		None Located		None Located		None Located		None Located		bestos type and percentage reported.	as not obtained due to safety considerations.	Roof, Over Bay Extension, Along Seams		Location of Material	
				INF		INF	•	INF		INF		INF	·		Material is	INF		Category	Friability
																15 Lin. Ft.		Measure	Field
																Chrysotile		Type	Asbestos
																15-30		Percent	•

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS Asbestos Survey Report

Assessos ourvey keport All materials requiring removal or special handling.

 ROUTE:
 I-55 OR

 MODOT JOB NO.:
 N/A

 DISTRICT:
 6

 COUNTY:
 City of St Louis

 DATE OF TESTS:
 April 28, 2011

 PARCEL NO.:
 E6-1120 (Ohio MT Lot)

TESTED BY:

CERTIFICATION #:

SITE ADDRESS:

TYPE(S) OF STRUCTURE(S):

Frank Reichart (707)
7112010411MOIR11239, F.R.
4360 Ohio Ave, St Louis 63111
6-Bay Block Maintenance Shed on Concrete Pad, Small Metal

Shed on Concrete Pad, Two (2) Metal-Clad Roof Equipment Racks, 5-Bay Concrete/Block Salt Shed on Concrete Pad with Attached Wooden Shed, Diesel Tank on Concrete Pad, Vertical Cement Tank on Metal Supports

																		202-40.48	202-40.48		Bid Item No.
																		11MFJR 140	11MFJR 139		Sample ID
Additional suspect material may be present hidden undernea	NOTE: Non-destructive m			Vertical Cement Tank and Supports			Salt Shed			Diesel Tank on Concrete Pad			Equipment Racks			Metal Shed on Concrete Pad		Caulking on Block	Caulking on Block	Maintenance Building	Type of Material
	means were used to survey and sample this property.	None Located	None Located	nd Supports	None Located	None Located		None Located	None Located	Pad	None Located	None Located		None Located	None Located	Pad	None Located	Vertical Seams, Window Insets, West Wall	4-Vertical Seams, North and South Ends		Location of Material
ıgs.	s property.	II NF	Ή,		HNII	ਸ		II NF	ਸ		IINF	'n		II NF	F		Ŧ	II NF	II NF		Friability Category
					:													80 Lin. Ft.	62 Lin. Ft.		Field Measure
																					Asbestos Type
																					Percent

MISSOURI DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS rate Survey Report of Painted Concrete Right Residence.

Metals Survey Report of Painted Concrete, Block, Brick Surfaces

 ROUTE:
 I-55 OR

 MODOT JOB NO.:
 N/A

 DISTRICT:
 6

 COUNTY:
 City of St Louis

 SURVEYED BY:
 Frank Reichart

 DATE OF SURVEY:
 April 21, 2011

TESTED BY:

PARCEL NO.:

SITE ADDRESS:

TYPE(S) OF STRUCTURE(S):

Frank Reichart (**)

April 21, 2011

E6-1120 (Ohio MT Lot)

4360 Ohio Ave, St Louis 63111

6-Bay Block Maintenance Shed on Concrete Pad, Small Metal

Racks, 5-Bay Concrete/Block Salt Shed on Concrete Pad with
Attached Wooden Shed, Diesel Tank on Concrete Pad, Vertical
Cement Tank on Metal Supports

Shed on Concrete Pad, Two (2) Metal-Clad Roof Equipment

				11MFJR 161	11MFJR 160	11MFJR 159	11MFJR 158	11MFJR 157	11MFJR 156	11MFJR 155	11MFJR 154	11MFJR 153	11MFJR 152		Sample ID	- 19-3		
No samples taken. No painted surfaces located.	Equipment Racks	No samples taken. No painted surfaces located.	Metal Shed on Concrete Pad	Black/Interior Wall/Block	Dark Gray/Interior Walls/Block	Light Gray/Interior Floor/Concrete	Gray/Interior Floor/Concrete	Red/Interior Walls/Block	Gray/Interior Walls/Concrete	White/Interior Walls/Block	Gray/Interior Walls/Block	Beige/Exterior Walls/Concrete	Beige/Exterior Walls/Block	Maintenance Building	Color/Location of Material/Substrate			•
				<22	<17	18	<10	<41	<9	<16	<21	236	27		As		•	
				<185	<171	<165	217	<147	<229	<272	<263	1,724	<251		Cr			
	,			.190	103	25	34	956	<9	82	176	1,065	233		Рb			
				<46	<44	<41	<39	<40	<49	<46	<45	<48	<48		Cd			Metals (ppm)
				<4	<4	<3	<3	<5	<3	<4	<4	9>	<4		Se			tals m)
				4,108	<805	<962	2,922	1,792	<1,577	2,284	<1,995	<1,271	<1,874		Ba			
				<27	33	<11	<9	<15	<12	<13	<14	<21	<18		Hg			
				<36	<34	<32	<30	<31	<37	<36	<35	<37	<38		Ag			

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050b = USEPA SW-846 Method 7471

MISSOURI DEPARTMENT OF TRANSPORTATION

CONSTRUCTION AND MATERIALS

Metals Survey Report of Painted Concrete, Block, Brick Surfaces

	DATE OF SURVEY:	SURVEYED BY:	COUNTY:	DISTRICT:	MODOT JOB NO.:	ROUTE:
	April 21, 2011	Frank Reichart	City of St Louis	6	N/A	I-55 OR
		TYPE(S) OF	SITE ADDRESS:	PARCEL NO.:	DATE OF TESTS:	TESTED BY:
Attached Wooden Shed, Diesel T Cement Tank on Metal Supports	Shed on Concrete Parks & Bay Concrete	STRUCTURE(S): 6-Bay Block Mainte	A 360 Ohio Ave, St Louis 63111	.: E6-1120 (Ohio MT Lot)	STS: April 21, 2011	Frank Reichart W
Attached Wooden Shed, Diesel Tank on Concrete Pad, Vertical Cement Tank on Metal Supports	Shed on Concrete Pad, Two (2) Metal-Clad Roof Equipment	TYPE(S) OF STRUCTURE(S): 6-Bay Block Maintenance Shed on Concrete Pad, Small Metal	_ouis 63111	Lot)		

_	rt	uis			
	TYPE(S) OF STRUCTURE(S):	SITE ADDRESS:	PARCEL NO.:	DATE OF TESTS:	TESTED BY:
Shed on Concrete Pad Two (2) Metal-Clad Roof Equipment	TYPE(S) OF STRUCTURE(S): 6-Bay Block Maintenance Shed on Concrete Pad, Small Metal	4360 Ohio Ave, St Louis 63111	E6-1120 (Ohio MT Lot)	April 21, 2011	Frank Reichart V

	11MFJR 164 Light Gree 11MFJR 165 Light Gree	11MFJR 163 Beige/Exte	11MFJR 162 Beige/Exte	Salt Shed	No samp	Diesel T:	Sample ID	
Vertical Cement Tank and Supports No samples taken. No painted surfaces located.	Light Green/Exterior Walls/Concrete Light Green/Exterior Walls/Block	Beige/Exterior Walls/Block	Beige/Exterior Walls/Concrete	1	No samples taken. No painted surfaces located.	Diesel Tank on Concrete Pad	Color/Location of Material/Substrate	
	<10	114	137				As	
	236 <192	850	700				Cr	
	17 23	416	425				Pb	
1	<44 <42	<44	<51				Cd	Metals (ppm)
	3	<4	ك				Se	tals m)
19000	1,324 1.306	1,614	1,726				Ва	
	<14 <12	<15	<16				Нg	
1		<34	<39				Ag	